

Amendments to the Claims:

1. (Currently amended) A medical device comprising:
a biocompatible structure carrying a genetic material, said biocompatible structure comprising a polymeric coating that coats at least a portion of said structure, said genetic material comprising:
(a) a first therapeutic agent comprising a vector containing a first polynucleotide that establishes a gene expression sufficient to produce a therapeutically sufficient amount of one or more products encoded by said first polynucleotide, wherein said first polynucleotide encodes an angiogenic agent; and
(b) a second therapeutic agent comprising a non-genetic therapeutic agent, wherein said non-genetic therapeutic agent is an angiogenic agent, wherein the second therapeutic agent does not include nitric oxide synthase.
2. (Cancelled)
3. (Original) The medical device of claim 1, wherein said vector is an adenoassociated virus vector.
- 4-8 (Cancelled)
9. (Previously cancelled)
10. (Original) The medical device of claim 1, wherein said vector comprises a viral vector.
11. (Original) The medical device of claim 10, wherein said vector is thermostable, replication-deficient, non-immunogenic, or a combination thereof.
12. (Original) The medical device of claim 1 wherein said expression is achieved in about 20% to about 80% of cells exposed to said genetic material.
- 13-16 (Cancelled)

17. (Currently amended) The medical device of claim 1, wherein said ~~biocompatible~~ polymeric coating comprises polyurethane, silicone, EVA, poly-l-lactic acid /poly ε-caprolactone blends, or a combination thereof.
18. (Original) The medical device of claim 1, wherein said polymer coating is from about 1 to about 40 layers having a thickness of from about 1 to about 10 μm/ layer of coating.
19. (Original) The medical device of claim 1, wherein said structure is a stent.
20. (Original) The medical device of claim 19, wherein said stent is a metallic stent.
- 21-22 (Cancelled)
23. (Original) The medical device of claim 1, wherein said first therapeutic agent and said second therapeutic agent are applied onto or impregnated into a same layer of said polymer coating.
24. (Original) A method of inhibiting or treating restenosis in a patient, said method comprising administering at a predetermined site within the body of said patient the device of claim 1.
25. (Previously amended) The method of claim 24, wherein said site is a site of mechanical injury to an arterial wall produced by treatment of an atherosclerotic lesion by angioplasty.
26. (Currently amended) A method of controlled delivery of a genetic material to a mammalian body comprising;
- (A) applying a polymer coating to at least a portion of a medical device;
- (B) applying a genetic material to said polymer coating to obtain a genetically coated medical device, said genetic material comprising: (a) a first therapeutic agent comprising a vector containing a first polynucleotide that establishes a gene expression sufficient to produce a therapeutically sufficient amount of one or more products encoded by said first polynucleotide, wherein said first polynucleotide encodes an angiogenic agent; and (b) a second therapeutic

agent comprising a non-genetic therapeutic agent, wherein said non-genetic therapeutic agent is an angiogenic agent, wherein the second therapeutic agent does not include nitric oxide synthase; and

(C) inserting or implanting said genetically coated medical device at a predetermined site in said mammal.

27. (Original) The method of claim 26, wherein said vector is adenoassociated virus vector.

28-31 (Cancelled)

32-33 (Previously cancelled)

34. (Original) The method of claim 26, wherein said vector comprises a viral vector.

35. (Original) The method of claim 34, wherein said viral vector is thermostable, replication-deficient, non-immunogenic, or a combination thereof.

36. (Original) The method of claim 26, wherein said expression is achieved in about 20% to about 80% of cells exposed to said genetic material.

37. (Currently amended) The method of claim 26, wherein said vector is a delayed expression vector ~~and said carrier is an early expression carrier~~.

38. (Original) The method of claim 37, wherein said delayed expression is an expression delayed from about two days to about 3 weeks after administration in vivo.

39. (Previously cancelled)

40- 41 (Cancelled)

42. (Original) The method of claim 26, wherein said coating comprises polyurethane, silicone, EVA, poly-l-lactic acid /poly ε-caprolactone blends, or a combination thereof.

43. (Original) The method of claim 26, wherein said polymer coating is from about 1 to about 40 layers having a thickness of from about 1 to about 10 μm / layer of coating.
44. (Original) The method of claim 26, wherein said structure is a stent.
- 45-46 (Cancelled)
47. (Original) The method of claim 44, wherein said stent is a metallic stent.
48. (Cancelled)
49. (Previously amended) The method of claim 26, wherein said non-genetic therapeutic agent is a protein.
50. (Previously amended) The method of claim 26, wherein said non-genetic therapeutic agent is a small molecule.
51. (Previously amended) The method of claim 26, wherein said non-genetic therapeutic agent is a non-protein based agent.
52. (Previously added) The medical device of claim 1, wherein said vector is site specific.
53. (Previously cancelled)
54. (Previously added) The medical device of claim 1, wherein said vector contains regulatory sequences.
55. (Previously added) The method of claim 26, wherein said vector comprises liposomes, lipofectin, lipoplexes, polyplexes, dextrans, starburst, dendrimer conjugates, polybenzene dimethyl sulfoxide, protamine sulfate, antibody conjugates, polylysine conjugates, gramicidin S, artificial conjugates, viral envelopes, viral-like particles, nano or micro particles, or a

combination thereof.

- 56. (Previously added) The method of claim 26, wherein said vector is site specific.
- 57. (Previously cancelled)
- 58. (Previously added) The method of claim 26, wherein said vector is a delayed expression vector.
- 59. (Previously added) The method of claim 26, wherein said vector contains regulatory sequences.